

INCIDENT OVERVIEW:

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At 0718 hours on the morning of February 15th 2022 the Binghamton Fire Department was dispatched to 159 Conklin Ave for a reported building fire. On arrival crews found heavy fire on the 3rd floor in the rear. Multiple hand lines were stretched and crews worked inside for over an hour before fire conditions in the cockloft forced an all-out call and master streams went into operation. Portions of the parapet as well as the roof eventually collapsed into the 3rd floor making structural conditions unsafe for reentry into the building. The decision was made for safety reasons that the building would need to be torn down immediately. Crews worked and remained on scene until after 1800 hours while the building was torn down.

FIRE ORIGIN:

A systematic process based on the scientific method was used to examine the fire scene to determine the fire's origin. This included a visual inspection of the building's exterior and interior, the evaluation of fuel packages and fire patterns, and the evaluation of available testimonial evidence provided by witnesses. In the process of examining and reconstructing the fire debris, the investigation team developed and tested several hypotheses specifically relating to the origin of the fire.

In selecting the final origin hypothesis, the evidence, observations and information identified and evaluated by the investigation team showed that the most intense area of fire development and progression had occurred within the rear porch area of the 3rd floor of the building. That evidence and information included the following.

Fire Effects:

While examining the fire debris present investigators observed several relevant fire effects, or measurable changes to a material as the result of exposure to fire. In this instance those fire effects included damage to, including consumption of, the contents of the 3rd floor rear porch area and relevant char damage to wooden structural components in and around that portion of the structure. Specifics regarding that observed damage included:

Contents Damage:

A refrigerator on the east end of the 3rd floor rear porch was almost completely consumed leaving only the metal shell. Other various items and bags of trash that had been on the rear porch had also been completely consumed. Significant damage to items within the 3rd floor kitchens directly off the rear porch was also evident.

Char Damage:

Char damage to the 3rd floor rear porch framing and roof was evident up to and including complete consumption of some of the wooden roof and wall members.

Indicators of High Temperature:

Soot staining and soot that had been burned away above the 3rd floor east apartment kitchen window on the C/D corner of the building was observed. The metal frame remaining from the refrigerator on the 3rd floor porch was both distorted and discolored.

Fire Patterns:

The area of the east end of the 3rd floor porch showed more significant damage as well as a lower level of damage than the west end of the 3rd floor porch. Damage to the rear wall of the porch gradually got higher moving from east to west.

Lowest Fire Damage:

Some damage to contents of the 2nd floor rear porch area was observed. This damage was consistent with having been caused by drop down from the fire on the 3rd floor rear porch igniting items that were being stored on or around the rear porch area on the 2nd floor.

Overhead Damage:

Significant damage to the rear porch roof including complete consumption of most portions of the roof covering the 3rd floor of the porch. Significant damage to structural members of the entire roof due to fire spread throughout the cockloft was also observed.

Structural Damage:

Significant damage to structural members of the entire roof due to fire spread throughout the cockloft was observed and eventually led to the complete collapse of the roof. Collapse of the roof caused portions of the parapet wall to also collapse.

Witness Information:

3rd floor east apartment tenants stated they were sleeping, heard glass break in the rear of the apartment. When they looked towards the rear of the apartment they could see smoke coming into the apartment and the smoke detectors began going off. They then grabbed the children and exited through the front stairs.

FIRE CAUSE:

The fire investigation team conducted a detailed examination of the fire debris in and around the area determined to have been the origin of the fire to identify evidence relating to the cause of that fire. Several hypotheses were developed and tested specifically relating to the cause of the fire. The evidence and observations developed during that examination included the following:

Cooking Equipment:

No cooking equipment was observed on the rear 3rd floor porch. Cooking equipment was eliminated as a potential fire cause.

Heating System:

The structure's heating system was located in the basement and was unable to be examined. However no heating equipment was observed in the area of the back porch or near the area of fire origin. Heating equipment was such eliminated as a potential fire cause.

Electrical Wiring, Distribution, and Appliances:

The structure's electrical system originated from a meter bank on the outside delta wall and connecting to the basement of the structure. Wiring for lighting existed on the rear porch but was unable to be closely examined due to structural conditions. Electrical wiring was unable to be eliminated as a potential fire cause.

Smoking Materials:

No smoking materials were found in or around the back porch however damage was sufficient enough that items could have been consumed. Smoking could not be ruled out as a potential fire cause.

Spontaneous Heating / Chemical Agents:

The fire investigators identified no information or materials in or around the area of fire origin, which would indicate the presence of product known to spontaneously heat or ignite. Additionally, there was no physical or testimonial evidence identified which would indicate the presence of chemical agents in or around the area of origin which, when combined, would create an exothermic chemical reaction causing the ignition of a fuel package. Spontaneous heating and chemical agents were eliminated as potential causes.

Weather Related Occurrences:

Weather conditions at the time of the fire were as follows: Fair skies with a temperature of 3 degrees and humidity at 80 % with light winds. Weather related occurrences were examined and eliminated as a potential fire cause.

Open Flames or Sparks:

No open flames or potential sources of an open flame or spark were observed in or around the area of fire origin. Open flames or sparks were eliminated as a potential fire cause.

Vehicle Related:

There were no vehicle related ignition sources; such as exhaust systems, running gear, mechanical failure, or collision damage, identified in the fire debris present in or around the area of fire origin capable of igniting a fuel package present. Vehicle related ignition scenarios were eliminated as potential fire causes.

Conditions located outside of the area of fire origin:

In addition to the examination for all accidental and natural causes in the area of the fire's origin, the investigation extended to include all the other areas of the structure.

There was no evidence, physical or testimonial, which was consistent with the existence of conditions located outside of the area of fire origin that would have resulted in the ignition of a fire at that area of origin. The involvement of conditions located outside of the area of origin of this fire was examined and eliminated

Incendiary Fire Indicators:

During the course of this investigation the fire investigation team identified the following conditions relating to the fire origin and spread, or potential indicators not directly related to combustion, which could be considered evidence of an incendiary fire cause. Those indicators include;

- Rapid fire progression on the rear porch area without a significant amount of fuel to cause it.
- Rapid burning of structural members of the 3rd floor rear porch including the underside of 3rd floor joists only in the area of the 3rd floor east apartment rear door.
- Quick deterioration of the size of flames being produced in the area of the rear porch.

Those items of evidence and indicators need to be investigated further prior to a final determination being made regarding their relevance in the cause of the fire.

WITNESS STATEMENTS / INFORMATION:

3rd floor east apartment tenants stated they were sleeping, heard glass break in the rear of the apartment. When they looked towards the rear of the apartment they could see smoke coming into the apartment and the smoke detectors began going off. They then grabbed the children and exited through the front stairs.

First arriving firefighters describe a massive amount of fire emanating from the rear porch area upon arrival with no fire initially venting from any windows. In the first few minutes on scene as crews stretched hose lines the fire quickly died down but did not go out on the rear porch and began venting from the 3rd floor east apartment kitchen window. Crews also noted that they had to keep returning to the rear porch to put out fire that kept reigniting on the rear porch.

DOCUMENTATION:

1 Documentation of the fire scene was accomplished by various members of the fire investigation team. The case files of the specific agencies involved should be referenced for specific details of this documentation.

Investigator N.Griswold documented the scene in the form of 79 digital photographic images.

CONCLUSION:

2 The fire investigation team developed several hypotheses based on the factual evidence identified during the investigation. Those hypotheses related to both the origin, and the cause of the fire. Each developed hypothesis was tested, either physically, cognitively or analytically, until one hypothesis found to be uniquely consistent with the facts and the principles of science remained.

The final hypothesis selected indicated that the fire originated on the 3rd floor rear porch of the structure in the area of the east apartment rear door. Due to an inability to examine the area of origin more closely to eliminate all but one potential cause the fire investigation team is listing the cause of this fire as undetermined at the time of this report.

FIRE INVESTIGATORS:

Fire Marshal Timothy M. O'Neill: _____

Lieutenant Nicholas J. Griswold: _____